

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 25, as follows:

-- Fig. 1 shows a relationship between the classification of electromagnetic waves and wavelengths thereof. First, extreme ultraviolet rays and X-rays will be described with reference to Fig. 1. Extreme ultraviolet rays (EUV) and vacuum ultraviolet rays (VUV) are electromagnetic waves having a wavelength shorter than that of ultraviolet rays in the classification of the electromagnetic waves shown in Fig. 1(a). As can be seen from the comparison of the classification of the electromagnetic waves of Fig. 1(a) with the wavelengths of electromagnetic waves of Fig. 1(b), X-rays indicate electromagnetic waves having a wavelength of 0.001 to 50 nm, wherein soft X-rays indicate X-rays having a wavelength of 0.5 to 50 nm. While a boundary between extreme ultraviolet rays and vacuum ultraviolet rays and soft X-rays is not clearly determined and they are partly overlapped in the classification, extreme ultraviolet rays, vacuum ultraviolet rays, and soft X-rays are electromagnetic waves having an intermediate wavelength of the wavelengths of ultraviolet rays and hard X-rays. Extreme ultraviolet rays, vacuum ultraviolet rays, and soft X-rays have such a property that they have a small amount of transmittancy and absorbed by an air layer. However, since they have a particularly high photon energy, they exhibit a transmittance force which permits them to penetrate the interior of a material such as metal, semiconductor, insulator, and the like from the surface thereof by several hundreds of nanometers. Further, since soft X-rays have such a degree of a photon energy as to be absorbed in inner shell electrons of atoms constituting a material, they exhibit an apparent difference of absorption depending upon elements constituting various materials. This property of soft X-rays is most suitable to the study of various types of materials

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